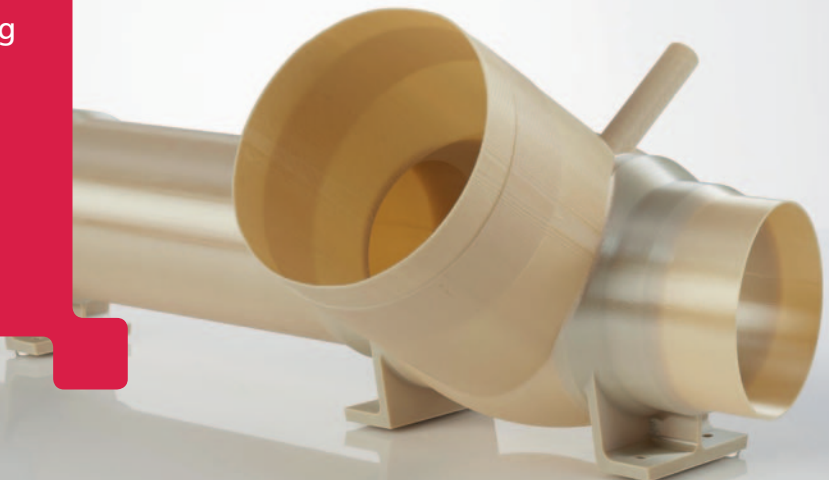


ULTEM™ 9085

Fused Deposition Modelling
(FDM)



High strength, heat and chemical resistant material

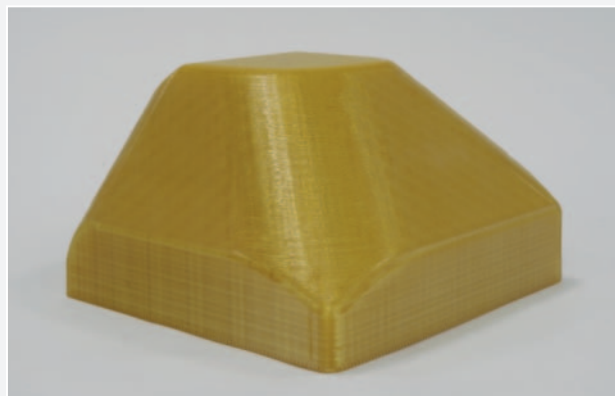
ULTEM™ 9085 is a flame-retardant high-performance thermoplastic perfectly suited to end-use applications. The pioneering material is well suited to the transportation industry due to its high strength-to-weight ratio and FST rating (Flame-Smoke-Toxicity). It is also ideal for end-use production grade parts in the aerospace, marine vehicle and automotive industries. Other applications include advanced functional prototypes, without the cost or lead time of traditional tooling.

Why choose ULTEM™ 9085?

- High strength-to-weight ratio
- High thermal and chemical resistance
- FST certified (14 CFR/FAR 25.853 & ASTM F814/E662)

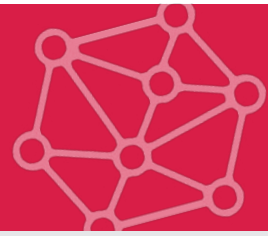
Applications

- Aerospace applications
- Environmental control system (ECS) ducting for aircraft
- Metal forming tools



ULTEM™ 9085

Fused Deposition Modelling (FDM)



General properties	Value (XY Axis)	Test method
Colour	Black Tan	Visual
Part density	1.34 g/cm ³	ASTM D792

Thermal properties	Value (XY Axis)	Test method
Heat deflection temperature – annealed (1.8Mpa)	153° C	ASTM D648

Mechanical properties	Value (XY Axis)	Test method
Tensile strength (ultimate)	69 MPa	ASTM D638
Tensile modulus	2150 MPa	ASTM D638
Elongation at break	5.8%	ASTM D638
Flexural strength	112 MPa	ASTM D790
Flexural modulus	2300 MPa	ASTM D790
Flexural strain at break	No break	ASTM D790
Flexural modulus	2006 MPa	ASTM D790
Impact strength – Izod (notched)	120 J/m	ASTM D256
Impact strength – Izod (un-notched)	781 J/m	ASTM D256

Burn testing	Value (XY Axis)	Test method
Horizontal burn (15 sec)	Passed (1.5mm thick)	14 CFR/FAR 25.853
Vertical burn (60 sec)	Passed (1.5mm thick)	14 CFR/FAR 25.853
Vertical burn (12 sec)	Passed (1.5mm thick)	14 CFR/FAR 25.853
45° Ignition	Passed (1.5mm thick)	14 CFR/FAR 25.853
Heat release	Passed (1.5mm thick)	14 CFR/FAR 25.853
NBS smoke density (flaming)	Passed (1.5mm thick)	ASTM F814/E662
NBS smoke density (non-flaming)	Passed (1.5mm thick)	ASTM F814/E662

Other	Value (XY Axis)	Test method
Flammability classification	V0 (1.5mm, 3mm)	UL94
OSU total heat release (2 min test, 1.5mm thick)	16 kW min/m ²	FAR 25.853

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Have a question? Call our friendly team on

+44 (0) 800 304 7196

Specifications are subject to change without notice.

The technical data indicated above is an average value of the test result of a part created under proper management and appropriate conditions.
The value is for reference and is not guaranteed.